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No. 6.

THE ROMAN TRIUMPHAL ARCHES.

IT is to the early Roman custom of decorating the city gates for the return of victorious generals, that we must look for the origin of the Triumphal Arch. In the days of the Republic, long before the emperors, this means of expressing Roman enthusiasm was discarded as inadequate, and special arches were built over the roads on which the conquerors were to enter. At first these structures were temporary, and of wood or other light material. Not until the pompous days of the emperors did the arches assume the architectural proportions with which we are familiar. In time it seems that the Romans grew fond of this form of monumental architecture, and were not content with confining it to Rome. Examples are to be found scattered through the smaller towns of Italy, in France, in Spain, in Algiers and even in Athens; while Rome herself is said to have been adorned with no less than twenty-one.

The triumphal arch, whether borrowed, as Mr. Fergusson suggests, from the Etruscans, or an outgrowth of Roman customs, is peculiarly Roman in its constructive nature. There is here a strange mixture of splendor and bad taste. The use of columns, for instance, on the faces of these huge blocks of masonry, where they have no function, is obviously a perversion of Greek inheritance. The beauty of the columns themselves, however, makes

us often forget the misuse, or at any rate forgive it. But the use of Greek pediments upon such structures is a corruption unpardonable even in the eyes of ardent admirers of the Romans. Fortunately, by the time of the erection of the elaborate arches, this fault was outgrown.

Since the problem was always the same,—there is but the one requirement, decoration,—the arches are similar in general treatment. The exterior is an elaborate piece of cut stone work, with columns and pilasters, a rich entablature, and so much attic or superstructure as will give a sufficient appearance of weight upon the arch, and complete the design. The mass of the building is usually of rough mortar masonry of the common sort, and in this one or more chambers will be found, where the thickness of the structure is sufficient. The main requirement of the exterior is to present a surface aptly fitted for decoration.

The simplest form of a triumphal arch is a wall with a gateway in it,—where no gate is needed for defense or enclosure,—decorated with architectural details and with sculpture. In the earlier days of the empire a single arch was the usual form; but later two smaller side arches, for the accommodation of foot passengers, were added. These increased the splendor of the monument and gave greater opportunities for ornamentation.



XLII.

The Arch of Drusus, Rome.

XL.I.

THE ARCH OF TITUS, ROME.

If not the first, certainly one of the earliest examples of the elaborate architectural style in which the triumphal arches were carried out, is the arch of Titus in Rome. Built by the Roman senate and people to commemorate the destruction of Jerusalem in 70 A.D., it was not finished until after the death of Titus in 83, though it was doubtless begun during his life. During the Middle Ages it was made a part of the fortress tower of the Frangipani, and was not isolated until 1822.

In composition it consists of a single opening framed by the composite order, and is said to be the first ever erected in which that order was employed. Whether or not that be true, it is certainly a graceful example of it, and has been treated as a model of its kind. It is built of large blocks of Parian marble, and is simple in outline and in excellent architectural taste. The archway is flanked on both faces by two engaged composite columns on each side which support the entablature. The frieze is sculptured with sacrificial processions. The shafts gradually diminish from the pedestals, and are surmounted by the usual acanthus capitals. They were doubtless originally all alike, though the outer columns have been restored in a manner unworthy of their old companions. The volutes, and in short all parts of the capitals as well as the details of the entablature, are in a style of profuse ornament. The spandrels are filled by two Victoress; one holding in her hand a standard, and the other apparently a laurel crown. The brackets under the cornice are formed of dolphins resting upon shells. On the keystone, now much decayed but once deemed the finest in Rome, are relics of a helmeted female figure, probably Rome herself.

The famous reliefs of the "Spoils of the Temple" are to be found on the walls of the interior of the passage. The sculptures are now much worn, but may still be recognized by their beauty and vigor as belonging to the first era of Roman art. The attic which surmounts the whole and bears the inscriptions is overpoweringly high,

and perhaps detracts from the beauty of the general proportions. The absence of sculpture on each side of the arch is also a defect; for the only logical function of these monuments is to present surface for sculptured decoration. Yet, as a whole, the arch of Titus is certainly the most remarkable in Rome for harmony of proportion and beauty of sculpture.

XL.II.

THE ARCH OF DRUSUS, ROME.

Another example of the single arched type is the Triumphal Arch of Drusus. It was erected by decree of the Senate, early in the Christian era, over the Appian Way, in recognition of the services of Drusus, the father of the Emperor Claudius, in the Rhætian and German Wars.

The structure consists of a single archway of massive Travertine masonry flanked by two composite columns on high pedestals. The opening is low for its width, and the key-block too heavy. The entablature, if one may judge of it by the blocks that still rest upon the columns, is too light for the substructure. The attic is gone, but there still may be detected in the midst of the rough masonry that surmounts the arch, a fragment of the cake mouldings of a pediment.

Caracalla, it is said, made use of the arch to carry the Arno aqueduct over the street; and doubtless the rough stone noted above is of his time.

In mass as well as in the use of the pediment, the arch of Drusus is inferior to the arch of Titus.

XL.III.

THE ARCH OF TRAJAN, ANCONA.

The arch of Trajan at Ancona was erected in 112 A.D. to commemorate, it has been conjectured, the completion of Trajan's improvements in the harbor of that town. Whatever the purpose, however, the result commands admiration. This arch, which is in remarkably good preservation, is built of white marble in light and elegant proportions. It has a single opening with a heavy keystone. It is to be noted that the four columns on each face are Corinthian, not composite. The arch



XLIII.

The Arch of Trajan, Ancona.

is attributed to the Greek architect, Appolodore. A high panelled attic above the entablature completes the whole. Dr. Freeman in his book of rambles about Italian towns thus speaks of the arch:—

“Tall, narrow, simple, it stands with a dignity worthy of the prince whose name it bears; a contrast alike to the rudeness of some arches of its kind and to the overdone splendor of others. This arch at Ancona has the great advantage of omitting the worst of the Greek masks with which the Romans faced their own constructions.”

XLIV.

THE ARCH OF TRAJAN, BENEVENTUM.

Another arch of the single opening type, also built by Trajan, is the Triumphal Arch at Beneventum. It once spanned the Appian Way, but now serves as one of the gates of the city. It was erected in 114 A.D.,—according to the inscriptions on both sides of the attic,—by the Roman senate and people in honor of Trajan. It is possible, as has been suggested, that the arch was built in commemoration of the prolongation of the Appian Way; but it is more likely that it was in honor of Trajan’s victories over the Dacians. The sculpture, at any rate, represents the Dacian wars and the emperor’s triumph.

This arch, of white marble, is one of the finest and best preserved of all the ancient triumphal arches. The opening has two fluted Corinthian columns on each side, supporting an elaborate entablature. Above is an attic in three compartments, the central one bearing the inscriptions. Each front is decorated with a frieze and several superimposed bands of sculpture. These sculptures are said not to be excelled by any extant specimens of Roman art. The spandrels of the arch are filled with Victoys.

The proportions of this arch are in pleasing contrast to those of the arch of Titus in Rome, where the attic, as has been noted above, is too high.

It is supposed that the Greek Appolodore designed this arch as well as the arch at Ancona.

XLV.

THE ARCH OF SEPTIMUS SEVERUS, ROME.

A fine example of a triumphal arch of the triple-arched type is that of Septimus Severus in the Roman Forum. It was built in 203 A.D. in commemoration of the victories over the Parthians and Arabs, in honor of the emperor and his sons, Caracalla and Geta.

The three archways, of which the central one is the largest, are coppered. Composite columns on high pedestals flank the arches. Here the columns are not engaged, but set in front of fluted pilasters of the same order. In the spandrels of the central arch are carved Victoys bearing trophies; in those of the side arches are River Gods. Over the side arches are reliefs representing incidents of the campaigns; on the pedestals of the columns are sculptured captive barbarians.

The high attic bears pompous inscriptions, and originally supported a group in bronze of the six horse triumphal car of the laurel crowned emperor.

The substructure of the arch is of Travertine, the columns are of Proconnesian, and the remainder is of Pentelic marble.

While the proportions of the arch of Severus are for the most part good, the attic is over-high, and shows the decadence that is still more marked in the crude sculptures.

XLVI.

THE ARCH OF CONSTANTINE, ROME.

Perhaps in general effect the most impressive of Roman triumphal arches is the arch of Constantine, dedicated in 315 A.D. Like the arch of Septimus Severus it has three archways. Each front is ornamented with four Corinthian columns on pedestals, supporting blocks of the entablature, which, with the dies resting on them, form pedestals for statues in Dacian costume. Above the entablature is a high attic, the central compartment of which bears inscriptions; the others are filled with reliefs taken from the monument of Trajan, representing that emperor’s triumph over the Orientals and Dacians. Beneath the entablature on each face, over the smaller arches, are four circu-



XLIV.

The Arch of Trajan, Beneventum.

lar medallions, also from that monument, showing scenes from Trajan's life.

Beneath these, a small band, carried round the structure, is sculptured with rude scenes from Constantine's campaigns. In the spandrels of the central arch are Victories crudely carved; while in those of the side arches are nymphs and river deities. On the side walls of the central arch are more reliefs, representing the exploits of Trajan; and on the side arches portraits of the sons of Constantine. On the basement piers are sculptured Victories and barbarian prisoners.

The reliefs of Trajan's time, upon which rest the claims to excellence of this arch, are in the best style of Roman decorative art, and contrast with the rough sculpture of Constantine's decadent age.

XLVII.

THE ARCH OF JANUS QUADRIFRONS, ROME.

A very curious arch of Greek marble is to be found at the extreme of the Boarian Forum. It is called the arch of Janus Quadrifrons, and was built a little later than the arch of Constantine. It is plausibly conjectured that it was erected for the triumphal entry of Constantine after his victories over Maxentius. This arch was used in antiquity as a shelter for the money changers. It is heavy and debased in style, and marks the decadence of the time. The structure is pierced by two passages at right angles, leaving four massive angle piers.

The central space is covered by a groined vault. On each face, arranged in two tiers beside the archway, are twelve niches, of which eight are for figures of divinities, and four blind.

The frieze and cornice are now much damaged and the attic is gone. The structure is perhaps more curious than architecturally interesting.

XLVIII.

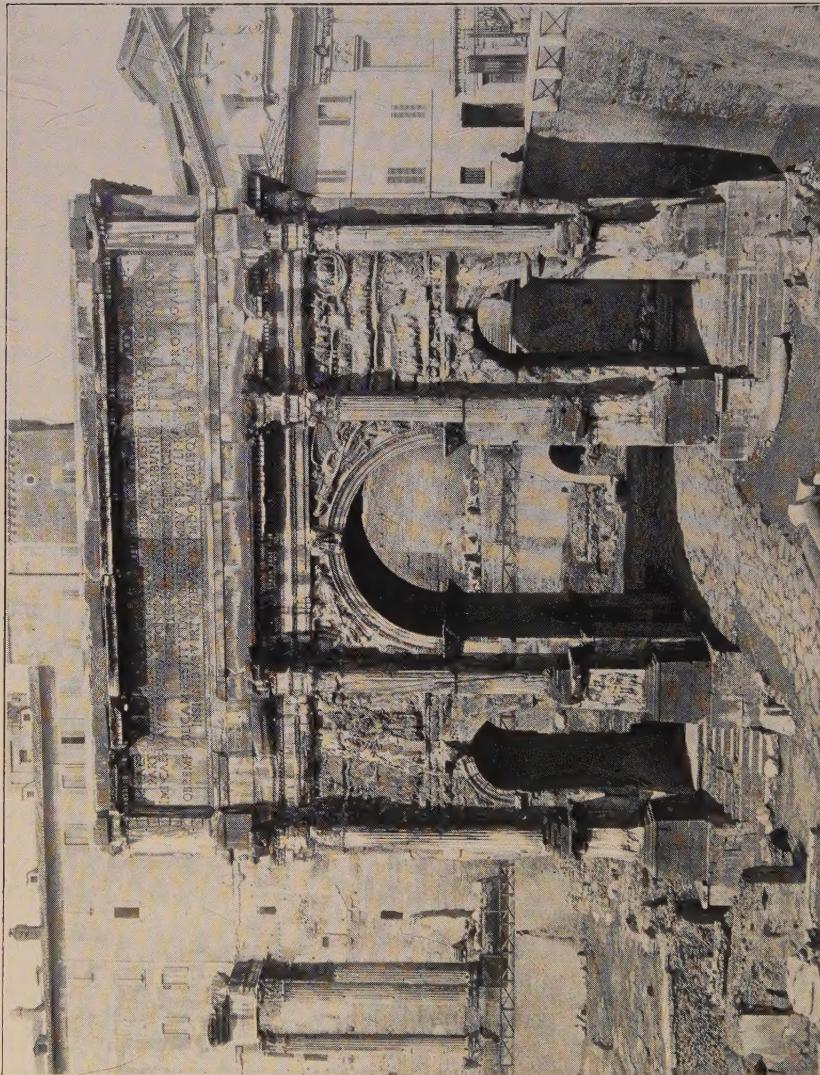
ROMAN ARCH AT RHEIMS, FRANCE.

While probably not triumphal, the great arch at Rheims partakes of the nature of the triumphal arches by its beauty of proportion and dignified splendor. This arch was doubtless, when perfect, more magnificent than any of the arches in Rome. Its great size no doubt lends much to its impres-

siveness. It is composed of three archways, the central one of which is slightly wider than those on the sides. While, unfortunately, this arch has been so much injured by being built into the walls of the city that it is difficult to say what its original form may have been, there still remains in excellent condition enough to make its beauty beyond question. The column, for instance, on the extreme right, and the bit of architrave above it, are remarkably well preserved and full of fine expression. The columns are Corinthian, and are more delicate than most work of their time; for that time, if we may judge from the decadent style of the sculpture, was in the last age of the Roman empire.

The plates in the last two issues of *The Architectural Review* are of particular interest to architects whose practice lies in the direction of public buildings, and to students who are working on academic lines of study. In Number IV. of the current volume, four plates are given to the new Worcester City Hall by Peabody & Stearns. The front elevation and three carefully studied details are shown, two of them being window openings which are most interestingly treated. The drawings themselves offer many suggestions for getting out "three-quarter scale" details.

Number V. contains two elevations of the Hotel Renaissance at the corner of Fifth Ave. and 43d St., New York. Messrs. Howard & Cauldwell are the architects of this building, which many consider one of the most noteworthy of recent additions to New York architecture. One of the elevations is reproduced on a double plate, in the same way as Carrère & Hastings' very fine drawing of the Sloane house which the *Review* published about a year ago. Another plate is devoted to a group of interesting pencil studies for the building. The new Minnesota State Capitol by Cass Gilbert is also well represented in this number by reproductions of working drawings. In both numbers will be found Mr. Goodhue's pen drawings, which are referred to at some length on page 95.



XLV.

The Arch of Septimus Severus, Rome.

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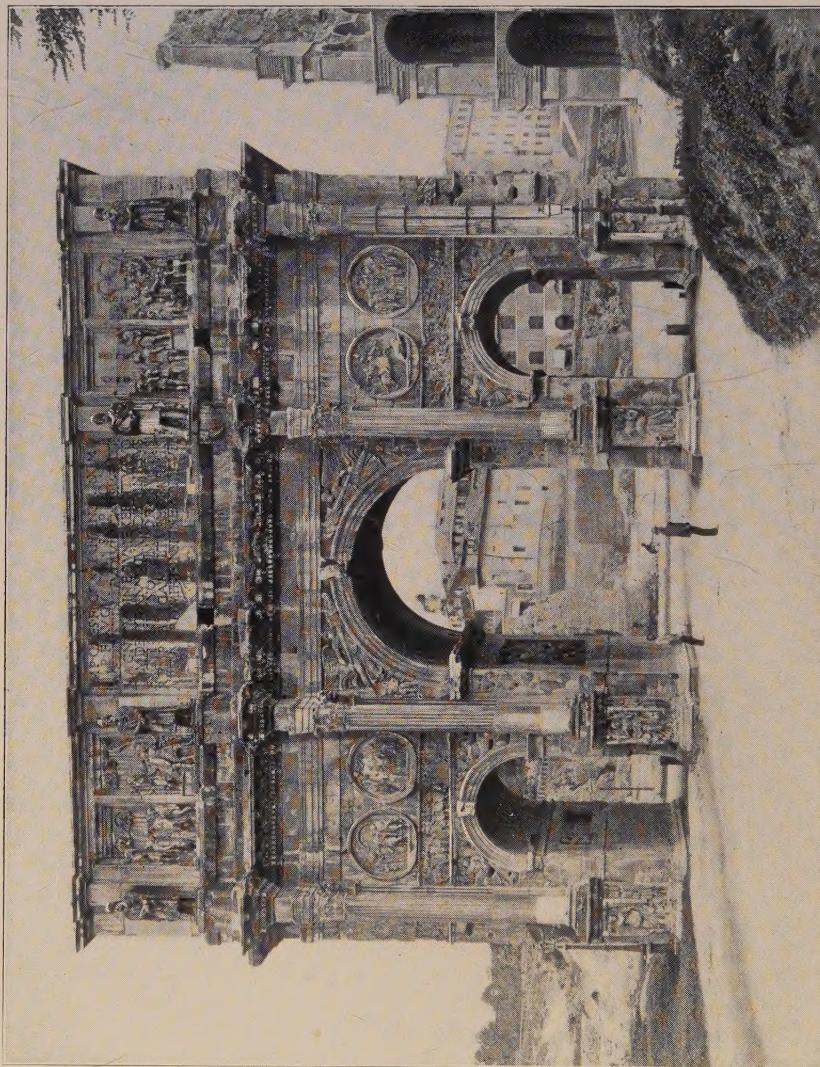
Architects, like other specialists in the field of art, are prone to look upon suggestions and criticisms from the "outside fools" as of little value, and often carry their pet prejudices so far as to make themselves obnoxious and ridiculous in the eyes of clients by their insistence upon questions of design in which the client has a perfect right to claim consideration. There is no surer mark of narrowness and lack of cultivation than intolerance; and intolerance and bigotry are vices which architects, of all men, should strive to avoid.

There is a chronic disposition on the part of architects to complain of the unreasonable conditions under which they are compelled to work. There is no doubt that most of these complaints are just. The competitive system, or lack of system, by which designs for public buildings are commonly obtained could hardly be worse than it is at present. Where public work is placed in the hands of an official architect the result is very rarely satisfactory. The amount of work required of an architect on private buildings is all out of proportion to the pay allowed, when this is compared with the income of men in other professions; and the demand upon architects is constantly growing both in amount and in the quality of service required, while there is little recognition on the part of the public of the burdens which these requirements place upon the practitioner. These are sound and vital grievances

which all right-minded persons will agree should be remedied.

On the other hand, the public may be excused for making such excessive demands, because of ignorance of the architect's aims and his professional limitations. It cannot be expected that the common people will ever come to know the details of the process by which a large building is conceived and carried into final execution, any more than it can be possible that everyone shall know the details of a lawyer's or a physician's practice. But the purpose for which lawyers or physicians are employed is now, and always has been, a definite one, and well understood. It is not so with an architect. If the purpose of a building be merely utilitarian, and nothing but a utilitarian result be expected or desired, either on the part of the client or the architect, the problem is a simple one and is merely a business transaction, the work of an engineer, not an architect. When, however, the question of building beautifully and appropriately is brought into consideration then the difficulties arise, and the question is at once complicated. In the present uncertain condition of popular appreciation of works of art, the absence of popular standards of beauty in architecture, and the conflict between the utilitarian money-getting tendency of modern civilization and the higher motives of the few who are striving for something more than material prosperity, these conditions are only natural, and may be looked upon as steps in the process of evolution which will lead to a final and satisfactory solution of this vexed question. In the meantime the public (as distinguished from the architectural profession) should be considered.

At the recent "IVe Congrès International des Architectes,"—a congress organized by the Société Central d'Architecture de Belgique to mark the twenty-fifth anniversary of its foundation,—three hundred delegates were present, representing fourteen different countries. The American delegation consisted of Mr. George Totten, who represented the U.S. Supervising Architect of the Treasury, Mr. Albert Kelsey,



XLVI.
The Arch of Constantine, Rome.

who represented the "T Square Club" of Philadelphia, and Mr. James T. Kelley of Boston. Mr. Kelsey delivered to the Congress an address in French, of which we subjoin a translation:

Monsieur le President and Gentlemen: The architectural society which I have the honor to represent at this Congress, has assumed, as its title, "The T-Square Club," and as its emblem, the draughtsman's T-square. Counting as its members more than one hundred and fifty architects, it stands today among the principal architectural societies in the United States, and has a recognized and active influence in the wide field of our profession.

Our Club, founded and incorporated under the laws of the State of Pennsylvania in 1883, is now entering upon its fifteenth year of useful and practical effort. The President, Mr. Daniel Knickerbocker Boyd, has so widened its sphere of action that, today, it is not only affiliated with the University of Pennsylvania, the Philadelphia Fine Arts League, and the Pennsylvania Academy of Fine Arts, but co-operates with almost all the other architectural organizations in the United States. It has the honor to be the only society of American architects represented at an International Congress held in Europe.

There is at the present time a great and widespread revival of popular interest in architectural matters in the United States. New schools, new clubs, new associations and new societies are being formed; and numerous travelling scholarships are every year accorded to our most promising students of architecture, by which means they are enabled to go abroad and there finish their professional education. At the present time no fewer than one hundred American students have either been already admitted, or are candidates for admission to the Ecole des Beaux-Arts in Paris; and many others are engaged in sketching throughout Europe. Excursions of this latter kind, or two months of practical work during every summer in the office of some practicing architect, form a prescribed part of the official program in most of our architectural schools and universities. An "American Academy" has been this year incorporated in Rome.

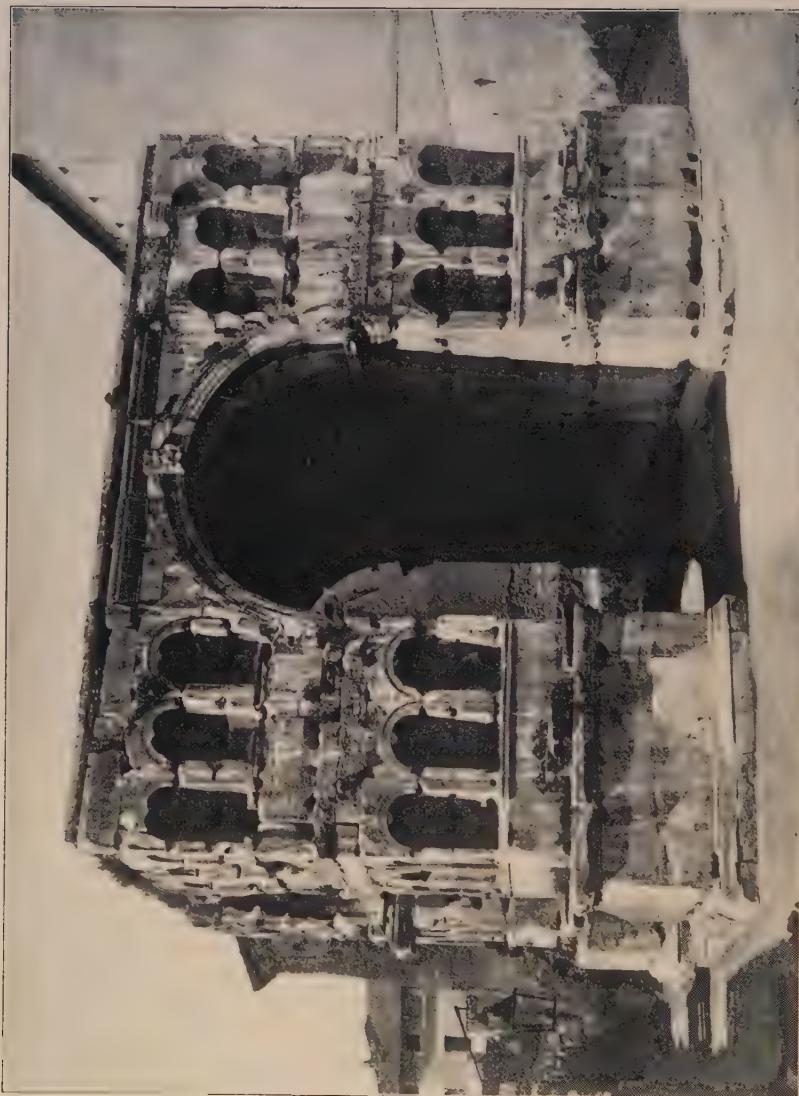
Among our reproductions of continental architecture in the United States we have, in Florida, specimens of the Spanish Renaissance style, as beautiful as any in Spain; in Philadelphia we have a high Bourse building, the ground floor and the first story of which, in the style of Francis I., are as exquisite examples of that style as any in France; in New York we have a "Giralda" Tower from Saville; and in Boston a perfected "Library of Sainte Geneviève."

But we are still waiting with impatience for the appearance among us of a style which shall mark and be inspired by our own times,—a style modern, national and indigenous.

Now, we of Philadelphia, are actively in search of this modern and national style, and at the meetings of the "T Square Club" you may find practicing architects who have been for ten years "anciens" of the Beaux-Arts in Paris, much travelled professors from our colleges, the most distinguished of our self-educated architects, students in the Pennsylvania schools of architecture, and draughtsmen,—all meeting upon a level of equality and freely offering the fruits of their intelligence for the advancement of an architecture which shall be purely American.

This is why I have been chosen to represent our Society at the International Congress of Architects. I am come, not only to be present as a delegate, but also, as a student, to take account, as accurately as possible, of all which goes on at this reunion; to take note of all which may in any way advance and facilitate our work at home; to render an account to my colleagues of the beauties of your numerous and splendid specimens of architecture, ancient and modern; and, moreover, to carry back with me what I have heard from the lips of the distinguished orators who have spoken here. I am, in fact, to carry back all possible architectural baggage which shall not be subject to duty under the rapacious provisions of the Dingey Bill.

In conclusion, gentlemen, in acknowledgment of the kindness and hospitality which I have received in Brussels, let me not only thank you most sincerely for myself, but assure you that should



XLVII.

The Arch of Janus Quadrifrons, Rome.

any of the attendants at this Congress ever happen to be in Philadelphia, he will find himself received with open arms by the members of our society, who will be delighted at any opportunity to return the hospitality which has been shown their present delegate. I hope that, at the coming Congress of Architects, which is to be held in Paris in 1900, the "T Square Club" will be represented by a member who shall be older, of more experience, and more worthy, than him to whom you have listened with such attention and indulgence.

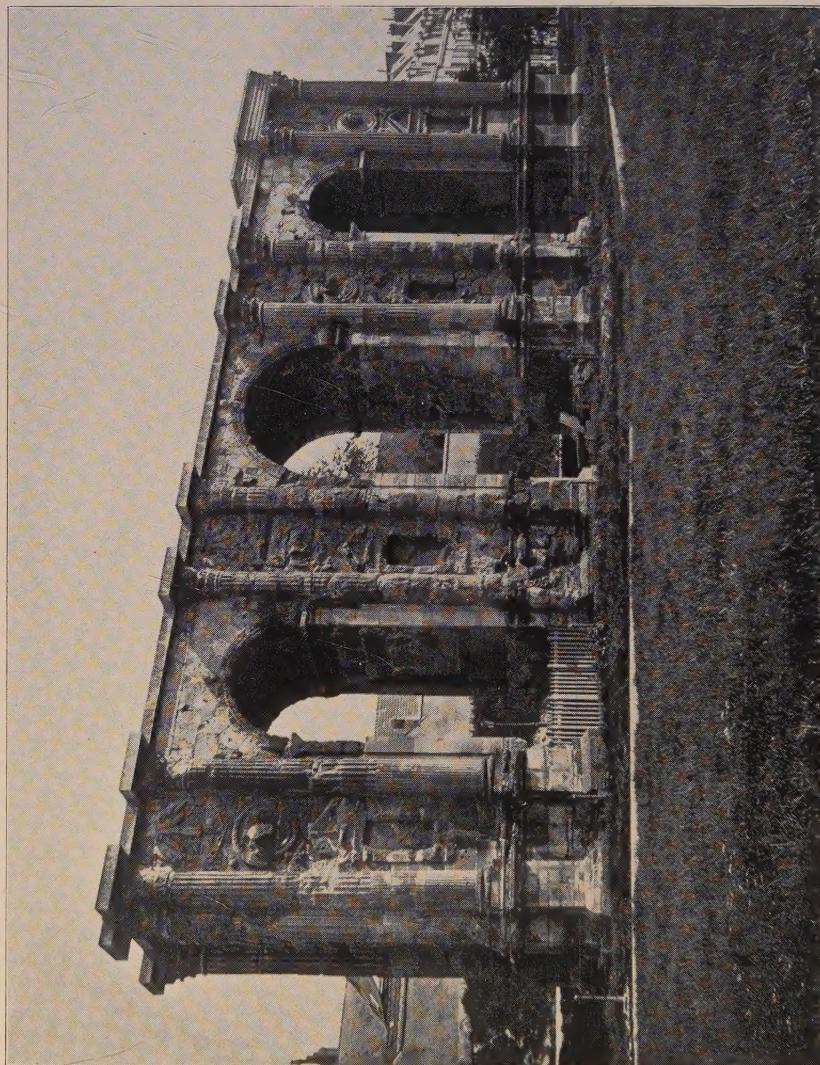
The last issue of *The Architectural Review* contains the first of a series of articles by Mr. Bertram Grosvenor Goodhue, in which the author describes a visit to an ideal mediæval town and illustrates his description with sketches of the buildings as they appeared to the eye of his imagination. The process by which these figments of a prolific brain were evolved is the same as that employed by any matter-of-fact architect in working out the every-day problems of actual practice; except that the designer was untrammelled by the restrictions of capricious clients, and commonplace difficulties of cost, site and construction, and was left free to compose his buildings and groups of buildings at his own sweet will. As might be expected, there is a charm in the result which is best compared with the musical compositions of Liszt, Grieg and Saint-Sæns—an utter abandon coupled with an underlying knowledge and recognition of form and propriety. Like the etchings of Whistler, in his freer manner, such as his representations of the Thames, the drawings show a wonderful conception of the picturesque and an ability to depict it with little labor and in the most direct way. The technique employed has a great fascination in itself, and is the mark of an artist who has mastered his materials. Doubtless Mr. Goodhue's drawings of the buildings he has actually constructed are already familiar to most architectural readers, but this series will introduce him in a new rôle, and show a more personal and individual side of his work than his former efforts afford. The draw-

ings here shown represent Mr. Goodhue at his best.

Notes.

Mr. G. Fugman, a Cleveland architect, has invented a method of fire-proof construction, that in some points is an improvement over present methods. It is founded on a well-known principle in strength of materials, and whether used for walls, partitions or floors, saves space. It is very quickly and cheaply put up, extremely rigid, vermin proof, affords space for wiring and piping, and costs but a small per cent over ordinary combustible construction. Mr. Fugman has carefully tested it in work of his own; and it is now being thoroughly tested by a prominent engineering firm. As soon as these tests are completed and the results tabulated, it will be put on the market by the Berger Manufacturing Co. of Canton, O. For schools, apartment-houses and hotels, it bids fair to prove a distinct advance in constructive methods; and Mr. Fugman is confident of practically demonstrating it to be the best known method for dwelling-house construction.

The draughtsman who has never drawn upon "English Metallic Paper," has missed one of the pleasures of his calling. It has for years been a favorite with architects who have sketched in lead pencil, and it is safe to say that a greater number of architectural sketches have been made upon it than upon any other one kind of paper. It has a smooth surface and is pleasanter to the touch than the hot-pressed papers, and at the same time has a "tooth" which takes and holds the lead and gives a crisp effect to the drawing which can not be obtained in any other way. It has until recently been difficult to obtain this paper in America, and many draughtsmen who might otherwise have used it have not been able to obtain it except through friends who have brought home a supply from abroad. There is now, however, no difficulty in this direction, as Messrs. Frost & Adams, 37 Cornhill, Boston, are carrying it regularly in stock. Their advertisement will be found in this number.



XLVIII.

Roman Arch at Rheims, France.



XLIX.

Capital, Palazzo Gondi, Florence.
